



Complete Summary

TITLE

Venous thromboembolism (VTE) diagnosis and treatment: percentage of low-molecular-weight heparin (LMWH)-eligible patients with deep vein thrombosis (DVT) treated in an outpatient setting.

SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Venous thromboembolism diagnosis and treatment. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2009 Feb. 79 p. [220 references]

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of low-molecular-weight heparin (LMWH)-eligible patients with deep vein thrombosis treated in an outpatient setting.

RATIONALE

The priority aim addressed by this measure is to improve accurate diagnosis and treatment of venous thromboembolism (VTE).

PRIMARY CLINICAL COMPONENT

Venous thromboembolism (VTE); deep vein thrombosis (DVT); low-molecular-weight heparin (LMWH)

DENOMINATOR DESCRIPTION

Number of low-molecular-weight heparin (LMWH)-eligible patients with deep vein thrombosis (DVT) treated with LMWH (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

NUMERATOR DESCRIPTION

Number of low-molecular-weight heparin (LMWH)-eligible patients with deep vein thrombosis (DVT) treated as outpatients (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Physician Group Practices/Clinics

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Group Clinical Practices

TARGET POPULATION AGE

Age greater than or equal to 18 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component**INCIDENCE/PREVALENCE**

Unspecified

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Complications or comorbidities of venous thromboembolism (VTE) include massive pulmonary embolism, contraindications to anticoagulation, known history of heparin-induced thrombocytopenia, extensive iliofemoral thrombosis/phlegmasia, pregnancy, familial bleeding disorders, and severe renal dysfunction.

EVIDENCE FOR BURDEN OF ILLNESS

Institute for Clinical Systems Improvement (ICSI). Venous thromboembolism diagnosis and treatment. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2009 Feb. 79 p. [220 references]

UTILIZATION

Unspecified

COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories**IOM CARE NEED**

Getting Better

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Patients age 18 years and older diagnosed with deep vein thrombosis who meet the criteria for low-molecular-weight heparin (LMWH)

Identify patients diagnosed with deep vein thrombosis using the specified diagnosis codes (see the "Denominator Inclusions/Exclusions" field). Some medical groups will be able to identify the population of patients through patient computer records of International Classification of Diseases, Ninth Revision (ICD-9) codes. If this is not possible, a list of patients may be generated from the radiology records for compression ultrasounds with a diagnosis of deep vein thrombosis.

The medical record of each patient is reviewed to determine if the patient meets any of the exclusion criteria (see the "Denominator Inclusions/Exclusions" field). If none of the exclusions are met, the chart is further reviewed for administration of LMWH.

Finally, the chart is reviewed for an inpatient admission within 7 days of the diagnosis of deep vein thrombosis.

The suggested time frame for data collection is a calendar month.

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of low-molecular-weight heparin (LMWH)-eligible patients with deep vein thrombosis* treated with LMWH**

*Patients diagnosed with lower extremity deep vein thrombosis as identified by the following International Classification of Diseases, Ninth Revision (ICD-9) codes: 451.11, 451.19, 451.2, 453.8.

**Patients treated with LMWH: listed with GCN code 7542.

Exclusions

Patients are excluded for any of the following conditions:

- Any deep vein thrombosis other than lower extremity
- Suspected or confirmed pulmonary embolus
- Contraindications to anticoagulation
- Familial bleeding or clotting disorders
- History of heparin-induced thrombocytopenia
- Pregnancy
- Phlegmasia/extensive iliofemoral disease
- Renal dysfunction requiring dialysis

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Number of low-molecular-weight heparin (LMWH)-eligible patients with deep vein thrombosis treated as outpatients*

*Include patients who do not have an inpatient admission within 7 days of diagnosis. Do not consider stays in observation units as inpatient admission.

Exclusions

Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data
Medical record

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Unspecified

STANDARD OF COMPARISON

Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Percentage of patients with deep vein thrombosis who are treated in an outpatient setting.

MEASURE COLLECTION

[Venous Thromboembolism Diagnosis and Treatment Measures](#)

DEVELOPER

Institute for Clinical Systems Improvement

FUNDING SOURCE(S)

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No work group members have potential conflicts of interest to disclose.

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2003 Apr

REVISION DATE

2009 Feb

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: Institute for Clinical Systems Improvement (ICSI). Venous thromboembolism. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2007 Jun. 91 p.

SOURCE(S)

Institute for Clinical Systems Improvement (ICSI). Venous thromboembolism diagnosis and treatment. Bloomington (MN): Institute for Clinical Systems Improvement (ICSI); 2009 Feb. 79 p. [220 references]

MEASURE AVAILABILITY

The individual measure, "Percentage of Patients with Deep Vein Thrombosis Who Are Treated in an Outpatient Setting," is published in "Health Care Guideline: Venous Thromboembolism Diagnosis and Treatment." This document is available from the [Institute for Clinical Systems Improvement \(ICSI\) Web site](#).

For more information, contact ICSI at, 8009 34th Avenue South, Suite 1200, Bloomington, MN 55425; phone: 952-814-7060; fax: 952-858-9675; Web site: www.icsi.org; e-mail: icsi.info@icsi.org.

NQMC STATUS

This NQMC summary was completed by ECRI on February 9, 2004. This NQMC summary was updated by ECRI Institute on July 27, 2004, July 20, 2005, May 1, 2006, October 8, 2007, and again on June 30, 2009.

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